**Amendments to the Claims:**

This listing of claims is provided for the Examiner's convenience. No claim amendments have been made with this Response.

**Listing of Claims:**

Claims 1-37. (Canceled).

38. (previously presented) An underwater buoyancy element, comprising:

a casing; and

a buoyancy fluid having a density that is less than that of sea water, the buoyancy fluid confined in and entirely filling said casing,

wherein said buoyancy fluid is a quasi incompressible fluid and naturally in a gaseous state at ambient atmospheric temperature and pressure, and naturally in an entirely liquid state at an underwater depth to which said buoyancy element is immersed.

39. (previously presented) The underwater buoyancy element according to claim 38, wherein said buoyancy fluid is naturally in a stable liquid state when it is placed at an underwater depth of between about 10 m and about 500 m.

40. (previously presented) The underwater buoyancy element according to claim 38, wherein said buoyancy fluid is a fluid that is entirely liquid, and that has a relative density in a liquid state from about 0.3 to about 0.8.

41. (previously presented) The underwater buoyancy element according to claim 38, wherein said buoyancy fluid is selected from the group consisting of: ammonia, a C-2 to C-7 alkane, a C-2 to C-7 alkene, a C-2 to C-7 alkyne, and a C-4 to C-7 diene.

42. (previously presented) The underwater buoyancy element according to claim 41, wherein said buoyancy fluid is selected from one of the group consisting of: ammonia, ethane, butane, propane, ethylene, propylene, butene, acetylene, methyl acetylene, propadiene, and butadiene.

43. (previously presented) The underwater buoyancy element according to claim 42, wherein said buoyancy fluid is selected from one of propane and butane.

44. (previously presented) The underwater buoyancy element according to claim 38, wherein said casing comprises walls defining an immersed structure.

45. (previously presented) The underwater buoyancy element according to claim 38, wherein said casing is disposed outside of and is coupled to an immersed structure.

46. (previously presented) The underwater buoyancy element according to claim 45, wherein said immersed structure is suspended from said buoyancy element by at least one cable.

47. (previously presented) The underwater buoyancy element according to claim 38, wherein said buoyancy element imparts buoyancy to an immersed structure to which it is one of connected, secured, or in which it is integrated.

48. (previously presented) The underwater buoyancy element according to claim 47, wherein said casing is flexible, and has a hydrodynamic profile for minimizing forces during vertical movements of the underwater buoyancy element when the underwater buoyancy element is full of said buoyancy fluid.

49. (previously presented) A method of putting a buoyancy element into place between the surface and the bed of the sea, the method comprising the steps of:

storing a buoyancy fluid in a tank on a surface ship as a liquid in a cooled or compressed state, the buoyancy fluid having a density that is less than that of sea water and comprising a compound that is naturally in a gaseous state at ambient atmospheric temperature and pressure, and in a liquid state at the underwater depth to which said buoyancy element is immersed; and

injecting the buoyancy fluid in the liquid state into a pipe that extends from the surface ship to an immersed casing and in storing the immersed casing at an underwater depth at which the underwater pressure is not less than the vapor pressure of the compound in the gaseous state at the ambient temperature at said depth.

50. (previously presented) The method according to claim 49, wherein said casing is a flexible casing that is lowered to the desired depth empty, in a folded state.

51. (previously presented) The method according to claim 49, wherein said casing is prefilled, at atmospheric pressure and temperature, with sea water or other quasi-incompressible fluid, the sea water or other quasi-incompressible fluid being discharged from the casing as the casing is filled with said buoyancy fluid.

52. (previously presented) The method according to claim 49, wherein said casing is prefilled with sea water and methanol to prevent the formation of hydrates before the casing is filled with the buoyancy fluid.

53. (previously presented) The method according to claim 49, wherein said casing is filled at the surface with a fluid other than the buoyancy fluid, and then lowered to a depth at which the hydrostatic pressure corresponds to the pressure at which said buoyancy fluid is subsequently injected into said casing with said other fluid being discharged.

54. (previously presented) The method according to claim 49, wherein said buoyancy fluid is stored as a liquid in the cooled state in a cryogenic tank and at atmospheric pressure, and it is injected in a pressurized liquid state into said immersed casing at a pressure corresponding to the hydrostatic pressure at the depth of said immersed casing, said buoyancy fluid passing through a heat exchanger so that the temperature of said buoyancy fluid is brought substantially to that of the sea water at the depth of said immersed casing prior to filling said casing.

55. (previously presented) A device for stabilizing or controlling the lowering or raising of a structure between the surface and the bed of the sea, said structure including or being connected to a buoyancy element according to claim 47, said device comprising:

at least one connection element of the cable or chain type, comprising:

a first end that is connected to a winch on board a floating support or ship on the surface of the sea, and on which the connection element is wound; and

a second end that is connected to a fastener element on said structure, or on the buoyancy element that is connected to said structure; and

wherein the length of said connection element is such that said winch is capable of winding or unwinding said first end of said connection element, so that a bottom portion of said connection element can hang beneath said fastener element.

56. (previously presented) The device according to claim 55, further comprising at least two of said connection elements, with corresponding fastener elements being disposed symmetrically, respectively around and on the periphery of said structure.

57. (previously presented) The device according to claim 55, wherein said connection element comprises a cable having a bottom portion coupled to a string of weighting blocks, said weighting blocks comprising metal blocks coupled to said cable by clamping.

58. (previously presented) The device according to claim 57, wherein said weighting blocks have a shape such that when said bottom portion hanging beneath said fastener elements

curves, two of said blocks disposed side by side are capable of coming into abutment against each other, thereby limiting the curvature of said cable.

59. (previously presented) The device according to claim 58, wherein the curvature of said cable is limited so that the minimum radius of curvature of said cable at said bottom portion enables a minimum distance to be maintained between said cable and said structure that is sufficient to prevent any mechanical contact between them while said structure is being lowered or raised.

60. (previously presented) The device according to claim 57, wherein each of said weighting blocks comprise a cylindrical central portion disposed between two frustoconical ends having axes that correspond to the direction of said cable when said cable is disposed linearly, two adjacent blocks being in contact at said frustoconical ends along a generator line of said frustoconical ends in the curved parts of said bottom portion.

61. (previously presented) The device according to claim 55, wherein said connection element comprises a chain having a bottom portion that comprises links that are heavier and larger than the links of the rest of the chain, so as to limit any curvature of the chain.

62. (previously presented) The device according to claim 55, wherein said buoyancy element is disposed above said structure.

63. (previously presented) The device according to claim 55, wherein said structure includes another buoyancy element that is integrated in said structure above said fastener element so that the center of gravity of said structure together with said buoyancy element is situated below the center of thrust that is exerted both on said structure and on said buoyancy element.

64. (previously presented) A method of lowering, raising, or stabilizing a structure between the surface and the bed of the sea by means of a device according to claim 55, said method comprising the following steps:

unwinding or winding the at least one connection element at its first end by means of a said winch; and

controlling the speed at which the at least one connection element is lowered or raised by regulating the speed at which the at least one connection element is respectively wound off or on said winch, so as to adjust the length of said bottom portion of said at least one connection element hanging beneath said fastener element,

wherein the lowering, raising, or stabilizing of said structure is obtained when the sum of the weight of the fraction of said bottom portion of the at least one connection element between a fastener point for fastening to said fastener element and the lowest point of said bottom portion, plus the weight of said structure as a whole and of said buoyancy element, is respectively greater than, less than, or equal to the buoyancy thrust that is exerted on said structure and on said buoyancy element.

65. (previously presented) The method according to claim 64, wherein said structure is a rigid structure of steel, other metal, or composite synthetic material containing a plurality of leak-tight buoyancy compartments that are suitable for forming buoyancy elements, with each of said compartments being fitted with at least one filling orifice and with at least one emptying orifice, said leak-tight compartments being distributed symmetrically in said structure.

66. (previously presented) The method according to claim 64, wherein said structure is a massive structure comprising an open-based receptacle in the form of a cap, the receptacle comprising a peripheral side wall surmounted by a roof wall and being suitable for completely covering a wreck of a ship on the sea bed in order to recover polluting effluent escaping therefrom, said receptacle having at least one emptying orifice for discharging said effluent contained in the inside volume of said receptacle; said emptying orifice being disposed on the roof of the receptacle.

67. (previously presented) The method according to claim 65, wherein said structure comprises an upside-down double-walled ship hull, said leak-tight compartments being defined by spaces between said double walls and by structural elements interconnecting the double walls.

68. (previously presented) The method according to claim 64, wherein the structure includes hollow tubular bars defining leak-tight compartments and forming buoyancy elements.

69. (previously presented) The method according to claim 64, wherein said structure is fitted on the outside with fastener elements enabling buoyancy elements and cables or chains

to be secured thereto for lowering said structure from the surface of the sea, putting it into place, and anchoring the structure to the sea bed; and

with steerable thrusters enabling said structure to be moved in a horizontal direction in order to position it.

70. (previously presented) A method of lowering, raising, or stabilizing a structure between a surface and a bed of a sea by means of a device, the structure having at least one leak-tight compartment, and the device including at least one connection element of a cable or chain type, the connection element having:

a first end that is connected to a winch on board a floating support or ship on the surface of the sea, and on which the connection element is wound; and

a second end that is connected to at least one of a fastener element on said structure, and a buoyancy element that is connected to the structure;

wherein a length of the connection element is such that the winch is capable of winding or unwinding the first end of the connection element, so that a bottom portion of the connection element can hang beneath the fastener element,

the method comprising the steps of:

unwinding or winding the at least one connection element at its first end by means of the winch;

controlling a speed at which the at least one connection element is lowered or raised by regulating the speed at which the at least one connection element is respectively wound off or on the winch, so as to adjust the length of the bottom portion of the at least one connection element hanging beneath the fastener element;

wherein a lowering, raising, or stabilizing of said structure is obtained when a sum of a weight of a fraction of the bottom portion of the at least one connection element between a fastener point for fastening to the fastener element and a lowest point of the bottom portion, plus the weight of the structure as a whole and of a buoyancy element, is respectively greater than, less than, or equal to a buoyancy thrust that is exerted on the structure and on the buoyancy element;

filling at least one leak-tight compartment at least partially with a buoyancy fluid that is lighter than the sea water that is recovered at the surface of the sea in a vicinity of the device, to produce buoyancy elements, at least one leak-tight compartment being adjusted to cause the structure to occupy an equilibrium position when immersed close to the surface of the sea;

lowering the structure to a desired position by means of the device, so as to regulate the speed at which the structure is lowered, and so as to provide equilibrium to a base of a substantially horizontal structure while it is being lowered; and

once the structure is immersed to the desired depth, emptying the at least one leak-tight compartment filled with the buoyancy fluid, and simultaneously filling the at least one leak-tight compartment with sea water.

71. (previously presented) The method according to claim 70, wherein,

additional buoyancy is provided to the structure by means of additional floats connected to the structure; and

further comprising the step of:

once the structure is in the underwater position at a desired depth, detaching the additional floats.

72. (previously presented) The method according to claim 70, further comprising once said structure has reached an equilibrium position in a vicinity of the sea bed, reducing lengths of heavy stabilizing cables or chains hanging beneath respective fastening elements to stabilize said structure in suspension,

anchoring said structure to the sea bed, and

fully lowering said heavy stabilizing cables or chains so that their entire weight contributes to stabilizing said structure.

73. (previously presented) The method according to claim 72, further comprising,

filling said leak-tight compartments connected to said structure with sea water or with a first fluid that is lighter than sea water; and

lowering said structure to a depth of 30 m to 60 m corresponding to a pressure of 3 bars to 6 bars, at which depth a buoyancy fluid consisting of a liquefied gas that is lighter than sea water is injected under pressure into said leak-tight compartments from a gas tanker ship on the surface to buoyancy elements.

74. (previously presented) A method of recovering polluting effluent that is lighter than sea water, as contained in the tanks of a shipwreck lying on the sea bed, the method comprising:

putting a receptacle into place in accordance with the method of claim 66; and

collecting the effluent recovered inside said receptacle by emptying the effluent through said emptying orifice.

75. (previously presented) The underwater buoyancy element according to claim 38, wherein said casing is disposed in a compartment of an immersed structure.

76. (previously presented) The underwater buoyancy element according to claim 38, wherein the underwater depth to which said buoyancy element is to be immersed is no less than about 1000 meters.

77. (previously presented) An underwater buoyancy element, comprising:

a casing; and

a buoyancy fluid having a density that is less than that of sea water, the buoyancy fluid confined in and entirely filling said casing,

wherein said buoyancy fluid is naturally in an entirely liquid state when maintained at a pressure and temperature identical to the pressure and temperature of sea water at the underwater depth to which said buoyancy element is to be immersed, and is naturally in a gaseous state at ambient atmospheric temperature and pressure at sea level.

78. (previously presented) The underwater buoyancy element according to claim 77, wherein the underwater depth to which said buoyancy element is to be immersed is no less than about 1000 meters.